



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,716	01/30/2004	Shunichi Kunihiro	00862.023436	6056

5514 7590 12/19/2006
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

UHLENHAKE, JASON S

ART UNIT	PAPER NUMBER
----------	--------------

2853

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/767,716

Applicant(s)

KUNIHIRO, SHUNICHI

Examiner

Jason Uhlenhake

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by
Masuyama et al (U.S. Pub. 2003/0035021)

Otsuki et al discloses:

- ***regarding claims 1, 8***, inkjet printing apparatus, having a carriage incorporating a cartridge incorporating an inkjet printhead where nozzles for discharging ink are arranged in a predetermined direction (Paragraphs 0075-0078), for performing printing by scanning the carriage with respect to a printing medium in a direction orthogonal to the predetermined direction (Figure 15; Paragraph 0013)
- first and second conveyance means (M2003-M2004, M3001-M3002 of Figure 11;), arranged at upstream side and downstream side, respectively, with respect to a printing-medium conveyance direction of an area of the printing medium scanned by the printhead, for conveying the printing medium while holding the printing medium (Paragraph 0153)

Art Unit: 2853

- nozzle setting means for, when the printing medium is held only by said second conveyance means (Figure 11; Paragraph 0151), setting nozzles to be used for printing by selecting from the nozzles of the printhead arranged at the downstream side in the printing medium conveyance direction (Figure 12; Paragraph 0156) , in accordance with a position of the printing medium in the printing medium conveyance direction, wherein said nozzle setting means, when printing a rear side of the printing medium, changes the nozzles to be used for printing at each scan of the printhead (H1001) (Figure 12; Paragraph 0157)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuyama et al (U.S. Pub. 2003/0035021) in view of Otsuki et al (U.S. Pat. 6,527,360)

Masuyama discloses:

- ***regarding claim 7***, inkjet printing apparatus, having a carriage incorporating a cartridge incorporating an inkjet printhead where nozzles for discharging ink are arranged in a predetermined direction (Paragraphs 0075-0078), for performing printing by scanning the carriage with respect to a printing medium in a direction orthogonal to the predetermined direction (Figure 15; Paragraph 0013)

Art Unit: 2853

- first and second conveyance means (M2003-M2004, M3001-M3002 of Figure 11;), arranged at upstream side and downstream side, respectively, with respect to a printing-medium conveyance direction of an area of the printing medium scanned by the printhead, for conveying the printing medium while holding the printing medium (Paragraph 0153)

- nozzle setting means for, when the printing medium is held only by said second conveyance means (Figure 11; Paragraph 0151), setting nozzles to be used for printing by selecting from the nozzles of the printhead arranged at the downstream side in the printing medium conveyance direction (Figure 12; Paragraph 0156) , in accordance with a position of the printing medium in the printing medium conveyance direction, wherein said nozzle setting means, when printing a rear side of the printing medium, changes the nozzles to be used for printing at each scan of the printhead (H1001) (Figure 12; Paragraph 0157)

Masuyama does not disclose expressly:

- ***regarding claim 3***, wherein during the plural times of scanning, nozzles to be used for printing are changed, instead of conveying the printing medium by at least one of the first and second conveyance means

- ***regarding claim 5***, said nozzle setting means makes setting to use all nozzles when the printing medium is held by both the first and second conveyance means

Art Unit: 2853

- **regarding claim 7**, a determining step of determining whether or not the printing medium is held only by one of the first and second conveyance means based on a position of the printing medium in a printing-medium conveyance direction

Otsuki discloses:

- **regarding claim 3**, wherein during the plural times of scanning, nozzles to be used for printing are changed, instead of conveying the printing medium by at least one of the first and second conveyance means (Column 12, Lines 16 – 37), for the purpose of printing images while accurately positioning image data on printing paper

- **regarding claim 5**, said nozzle setting means makes setting to use all nozzles when the printing medium is held by both the first and second conveyance means (Column 12, Lines 30 – 37), for the purpose of printing images while accurately positioning image data on printing paper

- **regarding claim 7**, a determining step of determining whether or not the printing medium is held only by one of the first and second conveyance means based on a position of the printing medium in a printing-medium conveyance direction (Column 12, Lines 16 – 30), for the purpose of printing images while accurately positioning image data on printing paper

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Otsuki into the device of Masuyama, for the purpose of printing images while accurately positioning image data on printing paper.

Art Unit: 2853

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuyama et al (U.S. Pub. 2003/0035021) in view of Takemura et al (U.S. Pat. 5,988,784)

Masuyama discloses all of the claimed limitations except for the following:

- ***regarding claim 6***, said nozzle setting means further comprises an association table of a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium

Takemura et al discloses:

- ***regarding claim 6***, said nozzle setting means further comprises an association table associating a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium (Column 8, Line 46 – Column 9 Line 5; Column 9, Lines 25 – 36), for the purpose of using a variety of recording mediums while minimizing deviations of recorded lines.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of nozzle setting means further comprises an association table of a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium as taught by Takemura et al into the device of Masuyama, for the purpose of using a variety of recording mediums while minimizing deviations of recorded lines.

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 5-8 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejections regarding Masuyama et al (U.S. Pub. 2003/0035021). They disclose setting/selecting nozzles to be used for printing from the nozzles of the printhead arranged at the downstream side in the conveyance direction (Figure 12 – downstream nozzles are included in the range of ejection openings of the print head/H1001 when printing the rear edge), and nozzles to be used for printing at each scan of the printhead are changed when printing a rear side of the printing medium (Figure 12 – the range of ejection openings changes with each scan of the printhead)

Art Unit: 2853

Conclusion


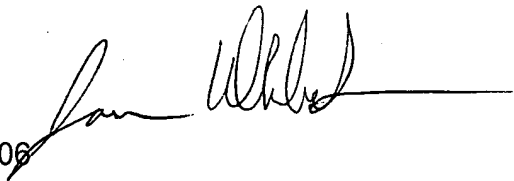
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU

December 12, 2006



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER